

Glaucocalyxin B

Chemical Properties

CAS No. : 80508-81-2

Formula: C₂₂H₃₀O₅

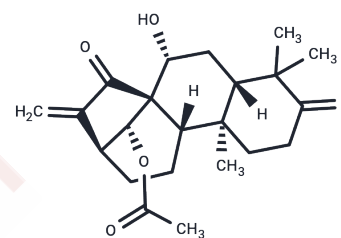
Molecular Weight: 374.47

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature, Store under nitrogen

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Glaucocalyxin B is a diterpenoid isolated from <i>Rabdosia japonica</i> with anticancer and antitumor activity. It decreases the growth of HL-60 cells (IC ₅₀ : 5.86 μM).
Targets(IC ₅₀)	Autophagy
In vitro	Glaucocalyxin A (GlnA) and B (GlnB) dose-dependently reduce HL-60 cell growth (IC ₅₀ s: 6.15 and 5.86 μM at 24 h) and induce apoptosis, G ₂ /M-phase cycle arrest, DNA damage, and the accumulation of reactive oxygen species (ROS) in these cells[1]. GlnB also inhibits the proliferation of human cervical cancer cells in vitro by inducing apoptosis and autophagy, potentially mediated through the phosphatidylinositol 4,5 bisphosphate 3 kinase/Akt signaling pathway, and dose-dependently reduces the proliferation of HeLa and SiHa cervical cancer cell lines, increases the apoptotic cell population, and enhances poly (ADP ribose) polymerase 1 cleavage[2].
Cell Research	The microglia cell viability is assessed by MTT assay. Cells are seeded in 96-well plates at the density of 5 × 10 ⁴ cells/well. The cell culture supernatant is discarded after treatment with various agents, and then 30 μL of MTT (0.5 mg/mL) solution is added into each well. After incubation for 4 h at 37 °C, 100 μL of DMSO is added into each well to dissolve the formazan dye, and then the absorbance of solubilized formazan is measured by microplate reader [3].

Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6704 mL	13.3522 mL	26.7044 mL
5 mM	0.5341 mL	2.6704 mL	5.3409 mL
10 mM	0.267 mL	1.3352 mL	2.6704 mL
50 mM	0.0534 mL	0.267 mL	0.5341 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yang WH, et al. Glucocalyxin A and B-induced cell death is related to GSH perturbation in human leukemia HL-60 cells. *Anticancer Agents Med Chem.* 2013 Oct;13(8):1280-90.

Pan Y, et al. Glucocalyxin B induces apoptosis and autophagy in human cervical cancer cells. *Mol Med Rep.* 2016 Aug;14(2):1751-5.

Gan P, et al. Anti-inflammatory effects of glucocalyxin B in microglia cells. *J Pharmacol Sci.* 2015 May;128(1):35-46.

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